


FORM PTO 90 (Rev. 3-93)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		Attorney's Docket Number 1438-30	
TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371				U.S. APPLICATION NO. (if known, see 37 CFR 15)	
				09/581172	
INTERNATIONAL APPLICATION NO PCT/EP98/07571		INTERNATIONAL FILING DATE October 8, 1999		PRIORITY DATE CLAIMED October 13, 1998	
TITLE OF INVENTION LABEL					
APPLICANT(S) FOR DO/EO/US Helmut SCHREINER					
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:					
<p>1. <input checked="" type="checkbox"/> This is a FIRST submission of items concerning a filing under 35 U.S.C. 371.</p> <p>2. <input type="checkbox"/> This is a SECOND or SUBSEQUENT submission of items concerning a filing under 35 U.S.C. 371.</p> <p>3. <input checked="" type="checkbox"/> This express request to begin national examination procedures (35 U.S.C. 371(f) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b) and PCT Articles 22 and 39(I).</p> <p>4. <input type="checkbox"/> A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.</p> <p>5. <input checked="" type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371(c)(2))</p> <p>a. <input type="checkbox"/> is transmitted herewith (required only if not transmitted by the International Bureau).</p> <p>b. <input checked="" type="checkbox"/> has been transmitted by the International Bureau.</p> <p>c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US)</p> <p>6. <input checked="" type="checkbox"/> A translation of the International Application into English (35 U.S.C. 371(c)(2)).</p> <p>7. <input type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (a35 u.s.c. 371(c)(3)).</p> <p>a. <input type="checkbox"/> are transmitted herewith (required only if not transmitted by the International Bureau).</p> <p>b. <input type="checkbox"/> have been transmitted by the International Bureau.</p> <p>c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired.</p> <p>d. <input type="checkbox"/> have not been made and will not be made.</p> <p>8. <input type="checkbox"/> A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).</p> <p>9. <input type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).</p> <p>10. <input type="checkbox"/> A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).</p> <p>ITEMS 11. to 16. below concern other document(s) or information included:</p> <p>11. <input checked="" type="checkbox"/> An Information Disclosure Statement under 35 CFR 1.97 and 1.98.</p> <p>12. <input type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.</p> <p>13. <input checked="" type="checkbox"/> A FIRST preliminary amendment. <input type="checkbox"/> A SECOND or SUBSEQUENT preliminary amendment.</p> <p>14. <input type="checkbox"/> A substitute specification.</p> <p>15. <input type="checkbox"/> A change of power of attorney and/or address letter.</p> <p>16. <input checked="" type="checkbox"/> Other items or information: One sheet of formal drawing</p>					

U.S. APPLICATION NO. (If known, see 37 CFR 1.15) 09/581172		INTERNATIONAL APPLICATION NO. PCT/EP98/07571		ATTORNEY'S DOCKET NUMBER: 1438-30	
17. [X] The following fees are submitted: Basic National Fee (37 CFR 1.492(a)(1)-(5)): Search Report has been prepared by the EPO or JPO \$ 840.00 International preliminary examination fee paid to USPTO (37 CFR 1.482) \$ 670.00 No international preliminary examination fee paid to USPTO (37 CFR 1.482) but international search fee paid to USPTO (37 CFR 1.445(a)(2)) \$ 760.00 Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO \$ 970.00 International preliminary examination fee paid to USPTO (37 CFR 1.482) and all claims satisfied provisions of PCT Article 33 (2)-(4) \$ 96.00				CALCULATIONS (PTO USE ONLY)	
ENTER APPROPRIATE BASIC FEE AMOUNT =				\$840.00	
Surcharge of \$130.00 for furnishing the oath or declaration later than [X] 20 [] 30 months from the earliest claimed priority date (37 CFR 1.492(e)).				\$130.00	
Claims	Number filed	Number Extra	Rate		
Total Claims	41 - 20 =	21	X \$18.00	\$378.00	
Independent Claims	1 - 3 =	0	X \$78.00	\$	
Multiple dependent claim(s) (if applicable)			+ \$260.00	\$260.00	
TOTAL OF ABOVE CALCULATIONS =				\$1,608.00	
Reduction by 1/2 for filing by small entity, if applicable. Verified Small Entity Statement must also be filed. (NOTE 37 CFR 1.9, 1.27, 1.28).				\$	
SUBTOTAL =				\$1,608.00	
Processing fee of \$130.00 for furnishing the English translation later than [] 20 [] 30 months from the earliest claimed priority date (37 CFR 1.492(f)).				\$	
TOTAL NATIONAL FEE =				\$1,608.00	
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property +				\$	
TOTAL FEES ENCLOSED =				\$1,608.00	
				Amount to be refunded	\$
				charged	\$
a. [X] A check in the amount of <u>\$1,608.00</u> to cover the above fee is enclosed. b. [] Please charge my Deposit Account No. _____ in the amount of \$ _____ to cover the above fees. A duplicate of this sheet is enclosed. c. [X] The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. <u>19-2380</u> . A duplicate copy of this sheet is enclosed.					
NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.					
SEND ALL CORRESPONDENCE TO: NIXON PEABODY LLP 8180 Greensboro Drive, Suite 800 McLean, Virginia 22102					
 SIGNATURE					
Donald R. Studebaker NAME					
<u>32,815</u> REGISTRATION NUMBER					

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Docket: 1438-30

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re New National Phase Patent Application of)
Helmut SCHREINER)
International Application No. PCT/EP99/07571) Attn: US/DO/EO
International Filing Date: October 8, 1999)
For: LABEL) Date: June 13, 2000

PRELIMINARY AMENDMENT

Honorable Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

Please preliminarily amend the subject application as follows:

IN THE CLAIMS:

Please amend the claims as follows:

Claim 7, lines 1 and 2, delete "at least one of the Claims 1 to 6" and insert
--claim 1--.

Claim 9, line 1 and 2, delete "at least one of the Claims 1 to 8" and insert --claim 1--.

Claim 10, lines 1 and 2, delete "at least one of the Claims 1 to 9" and insert --claim 1--.

Claim 11, line 1 and 2, delete "at least one of the Claims 1 to 9" and insert --claim 10--.

Claim 12, line 1 and 2, delete "with at least one of the Claims 1 to 8" and insert --claim 10--.

Claim 14, line 1, delete "or 13".

Claim 16, line 1, delete "or 14".

Claim 18, line 1, delete "or 17".

Claim 19, lines 1 and 2, delete "at least one of the Claims 16 to 18" and insert --claim 16--.

Claim 20, lines 1 and 2, delete "at least one of the Claims 1 to 19" and insert --claim 1--.

Claim 23, lines 1 and 2, delete "at least one of the Claims 20 to 22" and

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insert --claim 20--.

Claim 24, lines 1 and 2, delete "at least one of the Claims 20 to 23" and insert --claim 20--.

Claim 25, lines 1, 2, and 3, delete "at least one of the Claims 2 to 6 and in accordance with at least one of the Claims 20 to 24" and insert --claim 37--.

Claim 26, lines 1 and 2, delete "at least one of the Claims 1 to 25" and insert --claim 1--.

Claim 28, line 1, delete "26 or";
line 2, delete "the" (first and second occurrences) and insert --a-
(first and second occurrences).

Claim 29, lines 1 and 2, delete "at least one of the Claims 26 to 28" and insert --claim 28.

Claim 31, lines 1 and 2, delete "at least one of the Claims 20 to 24" and insert --claim 30--.

Claim 32, lines 1 and 2, delete "at least one of the Claims 1 to 31" and insert --claim 1--; and

line 2, after "is" insert --at least one of--.

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Claim 33, lines 1 and 2, delete "at least one of the Claims 1 to 31" and insert --claim 1--.

Claim 34, lines 1 and 2, delete "at least one of the Claims 1 to 33" and insert --claim 1--.

Claim 35, lines 1 and 2, delete "at least one of the Claims 1 to 34" and insert --claim 1--.

Claim 36, lines 1 and 2, delete "at least one of the Claims 1 to 34" and insert --claim 1--.

Please add new claim 37 as follows:

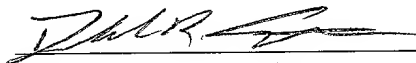
--37. Label in accordance with claim 20, characterized in that the label is at least partially provided with adhesive (4) on at least one side.--

REMARKS

The claims have been amended and added to change the dependencies therein.

Examination on the merits is requested.

Respectfully submitted,



Donald R. Studebaker
Registration No. 32,815

NIXON PEABODY LLP
8180 Greensboro Drive, Suite 800
McLean, Virginia 22102
(703) 790-9110

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Label

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The present invention relates to a label comprising at least one electronic component.

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These days, labels incorporating electronic components are used, inter alia, in those fields where one is concerned with the protection of goods from theft. Hereby, one or more electronic components are disposed within the label for setting off an alarm when they pass through an electromagnetically, or otherwise, actuated barrier, that is, insofar as the label has not been previously deactivated, for example, when paying for the goods at the cash desk.

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In this connection, there is a not infrequently occurring, serious problem that the usually highly sensitive electronic components are disposed in the labels or on the labels such that they are more or less unprotected. Since the labels themselves are usually made of less robust materials such as paper, the electronic components are not infrequently the subject of unintentional or deliberate damage which thereby puts the wanted function of the electronic components out of action.

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Based upon the aforementioned disadvantages and shortcomings of the known labels, the object of the present invention is to provide a label comprising at least one electronic component wherein the electronic component is protected by and retained securely on the label.

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5 In accordance with the invention, this object is achieved by means of a label comprising at least one electronic component, whereby, in the case of the label according to the teaching of the present invention, the electronic component is cast in synthetic material.

10 Surprisingly, a label formed in this manner is exceptionally insensitive to damage since the electronic component is securely retained in and protected by the synthetic material.

15 In this connection, the skilled person will particularly appreciate that the label in accordance with the present invention can be employed not just for protecting against theft but may also be employed, for example, for locating and/or detecting the presence or absence of an object such as when one is faced with the problem of determining the current location of an object that is being sought. Here, 20 objects with which a label of this type can be employed may perhaps be files, rubbish containers or palettes that present a logistical problem which can be solved by the present invention in an advantageous manner.

25 In addition, the present invention is also suitable for use in a system for storing and transmitting data in non-contact making manner between an object (one of the aforementioned objects for example) and a control or monitoring unit.

30 In this connection, the mechanical protection of the electronic component provided by the present invention can, in each case, be perceived as being the matter of fundamental importance.

35 In accordance with a particularly inventive embodiment, the

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label is self-adhesive. The label can thereby be attached at any time to an object, goods requiring protection against theft for example, or on the windscreen of a motor vehicle. To this end, one recommendation would be that the label be at least partially provided with adhesive on at least one side thereof, the adhesive preferably being of low adherency.

In order to reliably prevent as yet unused labels from undesirably sticking together due to the adhesive coating when the labels are stored or kept in stacked layers or piles, it is expedient to provide the side of the label that is coated with an adhesive with a protective foil. This protective foil is preferably siliconised so as to allow the protective foil to be easily and completely removed from the adhesive coating when the label is to be applied to an object.

As an alternative or as an addition to the previously described self-adhesive property, the label comprises, in accordance with a preferred embodiment of the present invention, at least one attachment means, which may for example, be in the form of at least one ribbon or at least one cord. It is advantageous here, if the label is in the form of a tag.

In dependence on the intended field of use, the synthetic material may be transparent or coloured. Particular aesthetic expectations can thereby be taken into account in every case without the whole visual impression being disturbed in any way by the label.

As regards the synthetic material in which the electronic component is cast, this may, to particular advantage, comprise at least one polyurethane resin i.e. a resin based

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on polyurethanes. Polyurethane resins are obtained predominantly from air-drying oils (triglycerides, unsaturated fatty acids) which are initially doubly decomposed using glycerine into a mixture of monoglycerides and diglycerides. The products resulting thereby are then converted into products, which no longer contain isocyanate groups and which dry and set like alkyd resins by virtue of an air oxidation process, using diisocyanates, preferably toluene diisocyanates (TDI) whereby the molecular ratio between isocyanate groups and hydroxy groups is less than or equal to one.

Polyurethane resins may be produced alternatively, from diisocyanates and polyalcohols (for example, glycerine, pentaerythrite) which have been partially esterified using unsaturated acids (for example, using tall oil). These are superior to the usual alkyd resins as regards drying speed and resistance to hydrolysis.

Finally, polyurethane prepolymers having terminal free or blocked isocyanate groups, which harden due to the effects of moisture and may be thermally activated if necessary, are also to be reckoned amongst the polyurethane resins.

As already mentioned above, the polyurethane resin preferably comprises the components, isocyanate and polyol.

In regard to the manufacture of labels in accordance with the present invention, two variants are basically conceivable, whereby in the first, the label is formed by flowing liquid polyurethane resin from a nozzle and then casting the electronic component in the liquid polyurethane resin. It is advantageous hereby if the flow and casting processes take the form of a drip process.

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As an alternative thereto, the label may be formed by casting the electronic component in liquid polyurethane resin in a mould, whereby the mould preferably has a smoothed surface. To this end, the mould may be polished and/or lined with silicon.

In accordance with one advantageous embodiment of the present invention, the label comprises a support layer preferably consisting of synthetic material or paper which is optionally transparent or coloured and/or which may be provided with at least one imprint whereby the imprint may for example, provide information regarding the usage or the function of the label.

If the label in accordance with the present invention is coated with an adhesive as was proposed in an embodiment hereinabove, then the support layer may be provided between the synthetic material and the adhesive.

In accordance with a particularly inventive development of the present label, there is provided at least one electroluminescent device which is suppliable with energy in appropriate manner via at least one antenna and/or at least one battery. As an alternative or in addition thereto, the colour and/or the shape of the illuminated region of the electroluminescent device may be controllable by means of a remote data transmission.

The electroluminescent device advantageously comprises at least one electroluminescent dyestuff which, for example, luminesces in colour in an alternating electrical field between the plates of a capacitor. In accordance with one expedient embodiment, the electroluminescent dyestuff is applied by printing, preferably being imprinted on the support layer of the label.

5 In dependence on the use to which the label is put, the electronic component may, for example, be an antenna, a battery, a chip, a capacitor, a digital circuit element, a circuit, a printed oscillatory circuit, a solar cell, a coil, a power storage means and/or a transponder.

10 It is advantageous if the label in accordance with the present invention has a rectangular shape and/or is very thin, whereby this last mentioned property is of especial significance when the label is in the form of a security label for goods. In this case, it is of basic importance that the label should not wear out.

15 A multiplicity of other applications of use for the labels in accordance with the present invention is conceivable. By way of example, mention will just be made here, of the employment of the label as a part of a toll deducting system, in which case the label would preferably be arranged
20 on the windscreen of a motor vehicle.

25 Further, embodiments, features and advantages of the present invention will be explained in more detail hereinafter with the aid of the embodiments illustrated by way of example in Figures 1 and 2 of the drawing. Therein

30 Figure 1 shows a first embodiment of a label in accordance with the present invention in the form of a sectional view; and

Figure 2 shows a second embodiment of a label in accordance with the present invention in the form of a sectional view.

35 Identical references in Figures 1 and 2 refer to the same or similar parts or features.

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5 The label shown in Figures 1 and 2 is not only utilised in theft prevention systems but is also utilised for locating and/or detecting the presence or absence of an object for example, such as when one is faced with determining the current location of an object that is being sought. Here, objects with which a label of this type can be employed and on which the label is placed or to which the label is applied may perhaps be files, rubbish containers or palettes that present a logistical problem which can be solved by the present invention in an advantageous manner.

15 In addition, the label illustrated in Figures 1 and 2 is also suitable for use in a system for storing and transmitting data in non-contact making manner between an object (one of the aforementioned objects for example) and a control or monitoring unit.

20 In this connection, the mechanical protection of the electronic component 2 provided by the label illustrated in Figures 1 and 2 can, in each case, be perceived as being the matter of fundamental importance as will be explained hereinafter. Although this cannot be explicitly derived from the illustration in Figures 1 and 2, it should be mentioned here that the label is rectangular and very thin.

25 A first embodiment of a label in accordance with the present invention is illustrated in Figure 1 in the form of a sectional view.

30 The label comprises an electronic component 2 which is cast in synthetic material 1. In dependence on the use to which the label is put, the electronic component 2 may, for example, be an antenna, a battery, a chip, a capacitor, a digital circuit element, a circuit, a printed oscillatory

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circuit, a solar cell, a coil, a power storage means or a transponder.

Furthermore, as is apparent from Figure 1, the label is self-adhesive. The label can thereby be applied to an object at any time. To this end, the label is provided with an adhesive 4 of low adherency on its lower surface i.e. on the side thereof facing the object.

The synthetic material 1 is transparent. As regards the synthetic material 1 in which the electronic component is cast, this is a polyurethane resin i.e. a resin based on polyurethanes. Polyurethane resins are obtained predominantly from air-drying oils (triglycerides, unsaturated fatty acids) which are initially doubly decomposed using glycerine into a mixture of monoglycerides and diglycerides. The products resulting thereby are then converted into products, which no longer contain isocyanate groups and which dry and set like alkyd resins by virtue of an air oxidation process, using diisocyanates, preferably toluene diisocyanates (TDI) whereby the molecular ratio between isocyanate groups and hydroxy groups is less than or equal to one. As already mentioned above, the polyurethane resin preferably comprises the components, isocyanate and polyol.

The manufacture of the label illustrated with the aid of Figure 1 is effected by casting the electronic component 2 in liquid polyurethane resin in a mould, whereby the mould preferably has a smoothed surface. To this end, the mould may be polished and lined with silicon.

A second embodiment of a label in accordance with the present invention is illustrated in Figure 2 in the form of a sectional view, this differing from the first embodiment

of Figure 1 basically in that the label comprises a coloured support layer 3. Here, the support layer 3 is provided between the synthetic material 1 and the adhesive 4 which covers portions of the lower surface i.e. the side of the support layer 3 remote from the synthetic material 1.

In the illustration of Figure 2, an electroluminescent device 5 that is suppliable with energy via an antenna 6 is provided on the upper surface i.e. on the side of the support layer 3 facing the synthetic material 1. Here, the colour of the illuminated region of the electroluminescent device 5 is controllable by means of a remote data transmission.

The electroluminescent device 5 comprises an electroluminescent dyestuff which lights up in colour in an alternating electrical field between the plates of a capacitor. Here, the electroluminescent dyestuff is imprinted on the support layer 3 of the label.

Claims

1. Label comprising at least one electronic component (2),
characterised in that the electronic component (2) is cast
in synthetic material (1).
2. Label in accordance with Claim 1, characterised in that
the label is self-adhesive.
3. Label in accordance with Claim 2, characterised in that
the label is at least partially provided with adhesive (4)
on at least one side.
4. Label in accordance with Claim 3, characterised in that
the adhesive (4) is of low adherency.
5. Label in accordance with at least one of the Claims 2 to
4, characterised in that the side of the label coated with
adhesive is provided with a protective foil.
6. Label in accordance with Claim 5, characterised in that
the protective foil is siliconised.
7. Label in accordance with at least one of the Claims 1 to
6, characterised in that the label comprises at least one
attachment means.
8. Label in accordance with Claim 7, characterised in that
the attachment means comprises at least one ribbon or at
least one cord.
9. Label in accordance with at least one of the Claims 1 to
8, characterised in that the label is in the form of a tag.
10. Label in accordance with at least one of the Claims 1 to

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9, characterised in that the synthetic material (1) is transparent.

5 11. Label in accordance with at least one of the Claims 1 to 9, characterised in that the synthetic material (1) is coloured.

10 12. Label in accordance with at least one of the Claims 1 to 11, characterised in that the synthetic material (1) comprises at least one polyurethane resin.

15 13. Label in accordance with Claim 12, characterised in that the polyurethane resin comprises the components, isocyanate and polyol.

20 14. Label in accordance with Claim 12 or 13, characterised in that the label is formed by flowing liquid polyurethane resin from a nozzle and by casting the electronic component (2) in the liquid polyurethane resin.

25 15. Label in accordance with Claim 14, characterised in that the flow and casting processes occur in the form of a drip process.

30 16. Label in accordance with Claim 12 or 13, characterised in that the label is formed by casting the electronic component (2) in the liquid polyurethane resin in a mould.

35 17. Label in accordance with Claim 16, characterised in that the mould has a smoothed surface.

18. Label in accordance with Claim 16 or 17, characterised in that the mould is polished.

19. Label in accordance with at least one of the Claims 16

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to 18, characterised in that the mould is lined with silicon.

5 20. Label in accordance with at least one of the Claims 1 to 19, characterised in that the label comprises a support layer (3).

10 21. Label in accordance with Claim 20, characterised in that the support layer (3) is transparent.

22. Label in accordance with Claim 20, characterised in that the support layer (3) is coloured.

15 23. Label in accordance with at least one of the Claims 20 to 22, characterised in that the support layer (3) is provided with at least one imprint.

20 24. Label in accordance with at least one of the Claims 20 to 23, characterised in that the support layer (3) consists of synthetic material or paper.

25 25. Label in accordance with at least one of the Claims 2 to 6 and in accordance with at least one of the Claims 20 to 24, characterised in that the support layer (3) is provided between the synthetic material (2) and the adhesive (4).

30 26. Label in accordance with at least one of the Claims 1 to 25, characterised in that at least one electroluminescent device (5) is provided.

27. Label in accordance with Claim 26, characterised in that the electroluminescent device (5) is suppliable with energy via at least one antenna (6) and/or at least one battery.

35 28. Label in accordance with Claim 26 or 27, characterised

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in that the colour and/or the shape of the illuminated region of the electroluminescent device (5) is controllable by means of a remote data transmission.

5 29. Label in accordance with at least one of the Claims 26 to 28, characterised in that the electroluminescent device (5) comprises at least one electroluminescent dyestuff.

10 30. Label in accordance with Claim 29, characterised in that the electroluminescent dyestuff is applied by printing.

15 31. Label in accordance with at least one of the Claims 20 to 24 and in accordance with Claim 29 or 30, characterised in that the electroluminescent dyestuff is imprinted on the support layer (3).

20 32. Label in accordance with at least one of the Claims 1 to 31, characterised in that the electronic component (2) is an antenna, a battery, a chip, a capacitor, a digital circuit element, a circuit, a printed oscillatory circuit, a solar cell, a coil, a power storage means and/or a transponder.

25 33. Label in accordance with at least one of the Claims 1 to 32, characterised in that the label has a rectangular shape.

34. Label in accordance with at least one of the Claims 1 to 33, characterised in that the label is very thin.

30 35. Label in accordance with at least one of the Claims 1 to 34, characterised in that the label is in the form of a security label for goods.

35 36. Label in accordance with at least one of the Claims 1 to 34, characterised in that the label forms part of a toll deducting system.

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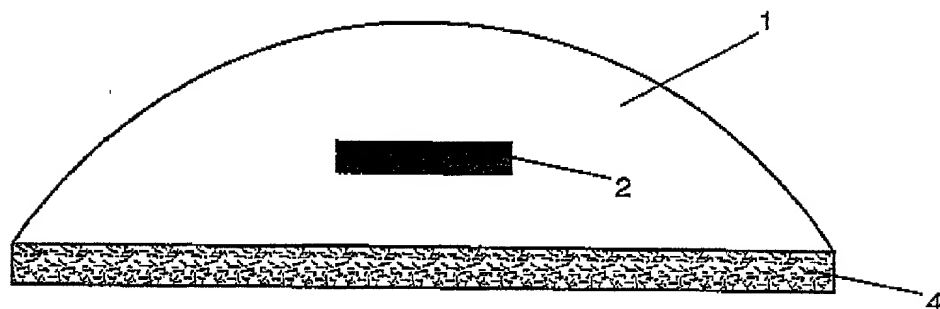


Fig. 1

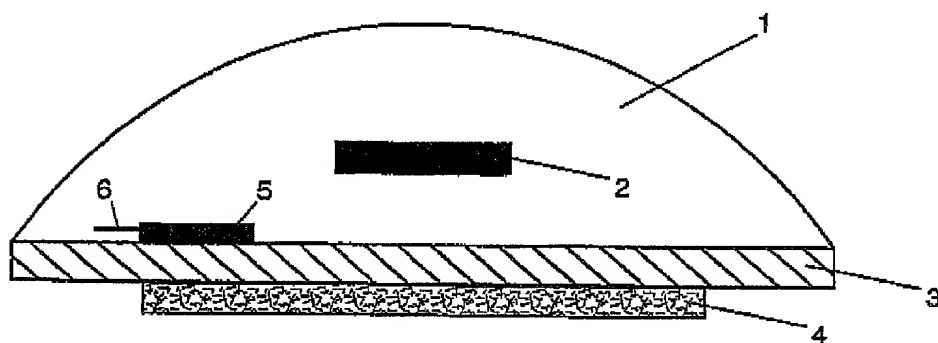


Fig. 2

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DECLARATION AND POWER OF ATTORNEY
FOR PATENT APPLICATION

As a below named inventor, I hereby declare that: my residence, post office address and citizenship are as stated next to my name; that I verily believe that I am the original, first and sole inventor (if only one name is listed below) or a joint inventor (if plural inventors are named below) of the invention entitled: LABEL, the specification of which is attached hereto unless the following box is checked:

[x] The specification was filed on June 13, 2000
and was assigned Serial No. 09/581,172
(if known)
and was amended on June 13, 2000
(if applicable)

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of federal Regulations, §1.56.

I do not know and do not believe the same was ever known or used in the United States of America before my or our invention thereof, or patented or described in any printed publication in any country before my or our invention thereof, or more than one year prior to this application, that the same was not in public use or on sale in the United States of America more than one year prior to this application, that the invention has not been patented or made the subject of an inventor's certificate issued before the date of this application in any country foreign to the United States of America on an application filed by me or my legal representatives or assigns more than twelve months prior to this application, and that no application for patent or inventor's certificate on this invention has been filed in any country foreign to the United States of America prior to this application by me or my legal representatives or assigns, except as follows:

I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate listed below and checked at right:

Prior Foreign Application(s) (Number) (Month/Day/Year Filed)			Priority Claimed	
			Yes	No
198 47 194.7	October 13, 1998	Germany	X	
PCT/EP99/07571	October 8, 1999	WIPO	X	

All foreign applications, if any, for any Patent or Inventor's Certificate filed more than 12 months prior to the filing date of this application:

Country	Application No.	Date of Filing (Month/Day/Year)

I hereby claim the benefit under Title 35, United States Code, §119(e) or §120, as applicable, of any United States

application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56 which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

Application Serial No.	Filing Date	Status: patented, pending, abandoned

I hereby appoint the following attorneys to prosecute this application and/or any international application and to transact all business in the Patent and Trademark Office connected therewith:

Daniel W. Sixbey, (Reg. No. 20,932)
 Charles M. Leedom, Jr. (Reg. No. 26,477)
 David S. Safran (Reg. No. 27,997)
 Donald R. Studebaker (Reg. No. 32,815)
 Tim L. Brackett (Reg. No. 36,092)
 Robert M. Schulman (Reg. No. 31,196)
 Daniel S. Song (Reg. No. 43,143)
 Brian C. Oakes (Reg. No. 41,467)
 James E. Howard (Reg. No. 39,715)

Stuart J. Friedman (Reg. No. 24,312)
 Gerald J. Ferguson, Jr. (Reg. No. 23,016)
 Thomas W. Cole (Reg. No. 28,290)
 Jeffrey L. Costellia (Reg. No. 35,483)
 Eric J. Robinson (Reg. No. 38,285)
 Marc S. Kaufman (Reg. No. 35,212)
 Corinne R. Gorski (Reg. No. 34,339)
 Jason H. Vick (Reg. No. 45,285)
 Paul D. Golian (Reg. No. 42,591)

Send Correspondence to:

Donald R. Studebaker, Esquire
 NIXON PEABODY LLP
 8180 Greensboro Drive, Suite 800
 McLean, Virginia 22102
 Telephone: (703) 790-9110

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

The undersigned hereby authorize any U.S. attorney or agent named herein to accept and follow instructions from _____ as to any action to be taken in the Patent and Trademark Office regarding this application without direct communication between the U.S. attorney or agent and the undersigned. In the event of a change in the persons from whom instructions may be taken, the U.S. attorneys or agents named herein will be so notified by the undersigned.

FULL NAME OF SOLE OR FIRST INVENTOR Helmut SCHREINER	INVENTOR'S SIGNATURE <i>Helmut Schreiner</i>	DATE 19.8.2000
RESIDENCE (City, State & Country) Schillerstrasse 23, D-85757 Karlsfeld (DE) <i>DEX</i>		CITIZENSHIP German
POST OFFICE ADDRESS (Complete Address including City, State & Country) Schillerstrasse 23, D-85757 Karlsfeld (DE)		